

अनिवार्य आवश्यकताएँ

संख्या : TEC40132111

Essential Requirements

ER No. : TEC40132111

S-GW/P-GW

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MTCTE के तहत जारी:

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Essential Requirements for:

S-GW/P-GW

Certification Scheme: **GCS**

Product Fee Group: **C**

This document lays down the Essential Requirements under MTCTE notified by GoI vide Gazette Notification No. G.S.R. 113 (E) dated 05-09-2017 for “Serving Gate (S-GW) / Packet Gateway (P-GW)” to be used in Indian Telecom Network.

Note: Annexures referred to in this ER are Annexures as mentioned in "Annexures to ERs" No. TEC/SD/DD/TCP-222/02/June19 as updated from time to time and available on MTCTE portal.

This product has the following variants:

1. P-Gateway
2. S-Gateway

1. Variant 1 : P-Gateway

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
1.1.2	Dual IP Layer Operation RFC 4213 - DNS	RFC 4213 Cl. 2.1 and 2.2. Annex-P6
1.1.3	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
1.1.4	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B
1.1.5	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
1.1.6	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B

1.1.7	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
1.1.8	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
1.1.9	IPV6 Extn Header Parameters	RFC 2460 or RFC 8200 . Annex-P7
1.1.10	IPV6 Header Parameters	RFC 2460 / RFC 8200 . Annex-P7

1.2 Interface 1 : Gx

S.No.	Parameter Name	Standard Name
1.2.1	Dynamic Policy and Provisioning Enforcement Procedures(Gx interface)	3GPP TS 29.212 3GPP TS 29.213
1.2.2	QoS Enforcement Procedures(Gx interface)	IETF RFC 3588

1.3 Interface 2 : Gy

S.No.	Parameter Name	Standard Name
1.3.1	Online Charging Procedures(Gy interface)	3GPP TS 32.240 3GPP TS 32.251 3GPP TS 32.299 IETF RFC 3588 IETF RFC 4006

1.4 Interface 3 : Gz

S.No.	Parameter Name	Standard Name
1.4.1	Offline Charging Procedures(Gz interface)	3GPP TS 32.240 3GPP TS 32.251 3GPP TS 32.299 IETF RFC 3588 IETF RFC 4006

1.5 Interface 4 : S2a

S.No.	Parameter Name	Standard Name
1.5.1	Mobile IPv4v6 Procedures(S2a interface)	3GPP 29.274 3GPP TS 29.281
1.5.2	User plane with control and mobility support procedures(S2a interface)	3GPP 29.274 3GPP TS 29.281

1.6 Interface 5 : S2b

S.No.	Parameter Name	Standard Name
1.6.1	Mobile IPv4v6 Procedures(S2b interface)	3GPP 29.274 3GPP TS 29.281
1.6.2	User plane with control and mobility support	3GPP 29.274 3GPP TS 29.281

	procedures(S2b interface)	
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1.7 Interface 6 : S5

S.No.	Parameter Name	Standard Name
1.7.1	Mobile IPv4V6 Procedures	3GPP TS 29.274
1.7.2	Mobility Management Procedures(S5 interface)	3GPP TS 29.274
1.7.3	Non 3GPP Access related Procedures(S5 interface)	3GPP TS 29.274
1.7.4	Tunnel Management Procedures(S5 interface)	3GPP TS 29.274

1.8 Interface 7 : S6b

S.No.	Parameter Name	Standard Name
1.8.1	Mobility related authentication and authorization procedures(S6b interface)	3GPP TS 29.273

1.9 Interface 8 : SGi

S.No.	Parameter Name	Standard Name
1.9.1	Internet Traffic Handling Procedure(SGi interface)	3GPP TS 29.061 Radius: IETF RFC 2865 Diameter: IETF RFC 3588 DNS: IETF RFC 1035 DHCP: IETF RFC 2131

2. Variant 2 : S-Gateway

2.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
2.1.1	Conducted And Radiated Emission - Class A	TEC EMI EMC Standard CISPR 22/32 EN55022/32. Annex-B
2.1.2	Dual IP Layer Operation RFC 4213 - DNS	RFC 4213 Cl. 2.1 and 2.2. Annex-P6
2.1.3	Immunity to AC Voltage Dips and Short Interruptions	TEC EMI EMC Standard EN/IEC:61000-4-11. Annex-B
2.1.4	Immunity to Electrostatic Discharge	TEC EMI EMC Standard EN/IEC:61000-4-2. Annex-B

2.1.5	Immunity to Fast Transients (Burst)	TEC EMI EMC Standard EN/IEC:61000-4-4. Annex-B
2.1.6	Immunity to Radiated RF	TEC EMI EMC Standard EN/IEC:61000-4-3. Annex-B
2.1.7	Immunity to RF Field Induced Conducted Disturbance	TEC EMI EMC Standard EN/IEC:61000-4-6. Annex-B
2.1.8	Immunity to Surges	TEC EMI EMC Standard EN/IEC:61000-4-5. Annex-B
2.1.9	IPV6 Extn Header Parameters	RFC 2460 or RFC 8200 . Annex-P7
2.1.10	IPV6 Header Parameters	RFC 2460 / RFC 8200 . Annex-P7

2.2 Interface 1 : Lawful Interception

S.No.	Parameter Name	Standard Name
2.2.1	Interception Procedures	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108
2.2.2	Interface Management Procedures (Lawful Interception)	3GPP TS 33.106 3GPP TS 33.107 3GPP TS 33.108

2.3 Interface 2 : S11 Interface towards Serving Gateway

S.No.	Parameter Name	Standard Name
2.3.1	CS Fall back related procedures(S11 interface)	3GPP TS 29.274
2.3.2	Interface Management Procedures (S11 Interface towards Serving Gateway)	3GPP TS 29.274
2.3.3	Mobility Management Procedures (S11 Interface towards Serving Gateway)	3GPP TS 29.274
2.3.4	Tunnel Management Procedures (S11 Interface towards Serving Gateway)	3GPP TS 29.274

2.4 Interface 3 : S1U

S.No.	Parameter Name	Standard Name
2.4.1	Data Transfer Procedures(S1U interface)	3GPP TS 29.281

2.5 Interface 4 : S5

S.No.	Parameter Name	Standard Name
2.5.1	Mobile IPv4V6 Procedures	3GPP TS 29.274
2.5.2	Mobility Management Procedures(S5 interface)	3GPP TS 29.274
2.5.3	Non 3GPP Access related Procedures(S5 interface)	3GPP TS 29.274
2.5.4	Tunnel Management Procedures(S5 interface)	3GPP TS 29.274